

Application Serial No. 10/579,274  
Reply to Office Action of June 14, 2010

PATENT  
Docket: CU-8471

### REMARKS

In the Office Action, dated June 14, 2010, the Examiner states that Claims 1-11, 21 and 23-27 are pending, Claims 1, 2, 7-11, 21, 23-25 and 27 are rejected and Claims 3-6 and 26 are objected to. By the present Amendment, Applicant amends the claims.

#### Rejections under 35 U.S.C. §102(b) and §103(a)

Claims 1, 2, 9-11, 21, 23 and 24 are rejected under 35 U.S.C. §102(b) as being anticipated by US 6,220,357 (Carmichael). Claims 7, 8 and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Carmichael in view of US 6,978,840 (Henderson). Claim 25 is rejected under 35 U.S.C. §103(a) as being unpatentable over Carmichael. Claims 3-6 and 26 are indicated as containing allowable subject matter.

At the outset, Applicant thanks the Examiner for indicating the allowability of Claims 3-6 and 26. Applicant also notes that Claim 1 has been amended to further clarify the configuration recited by this claim but no substantive amendments have been executed. However, Applicant respectfully asserts that the currently pending claims are allowable for the following reasons, without rewriting Claims 3-6 and 26 in independent form.

Specifically, with reference to Claim 1, Applicant respectfully submits that Carmichael does not teach or suggest a plug. In Claim 1, the plug is defined as having a bore through a portion thereof. The plug of Claim 1 has a closed portion such as to stop flow axially in the wellbore. The plug of the present invention is used to isolate what is below the plug from what is above it. Carmichael discloses a through bore; therefore, it cannot be used to isolate what is below from what is above the device. The tool disclosed by Carmichael does not plug the wellbore. In this regard, Applicant respectfully submits that Claim 1 is novel over Carmichael.

Furthermore, Applicant submits that Carmichael does not disclose a second closed state where the actuating member is locked in the first position regardless of the pressure in the direction of the plug. It would appear that the Office Action has mischaracterized this portion of the claim and refers to Figures 28 to 30. It is clear from the description at column 5, lines 59 to 65, that the alleged second state in Carmichael involves moving the sleeve downwardly with respect to the body and locking it via the J slot pin and the J slot to close production through ports 3A and

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3B. Applicant submits that the closed configuration disclosed by Carmichael relates to moving from a first closed position to a second closed position where the sleeve is 'primed' for movement to the open position. Therefore, it is submitted that Carmichael does not teach or suggest a second closed state in the context of Claim 1. Therefore, in this respect also, Applicant submits that Claim 1 is novel over Carmichael.

Moreover, Applicant submits that Carmichael does not disclose a third open state wherein the actuating member [sleeve] is moved to a second position on increasing the pressure to the predetermined pressure range and holding the pressure in the range for a predetermined time. Movement to the open state in Carmichael is from the primed configuration when pressure is bled off/decreased and the sleeve moves downwardly to the open position under the force/bias of the spring.

Carmichael does not disclose a second state where the tool is locked, which advantageously means that pressure testing can be performed with certainty that the ports are closed. In the closed position disclosed by Carmichael, the downhole tool is locked for run in, but on application of pressure the shear pin shears to move to the primed configuration. In the primed configuration, Carmichael depends on applied pressure to keep the radial ports closed. In Carmichael, the actuating member moves to the open position only when pressure is bled off.

Claim 1 clearly recites that movement to the open position is due to increasing pressure to the predetermined pressure range and holding the pressure in the range for a predetermined time. In contrast, Carmichael uses a reduction in pressure/bleed off so that the sleeve moves to the open position due to the bias of the spring. Applicant respectfully submits that Claim 1 is novel over Carmichael because clearly the open configuration of the plug as recited in Claim 1 is arrived at differently from the open configuration disclosed in Carmichael.

Moreover, the open and closing actions of the plug of Claim 1 can be repeated. Therefore, this allows tests to be done as and when required. In Carmichael, the device is run in closed and functions open. Carmichael requires the shear pin or the primed condition, when the sleeve is held under pressure, in the closed state. On release of the pressure, the sleeve moves to open. The Carmichael device cannot be reclosed.

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Based on the comments presented above, Applicant respectfully submits that Claim 1 is not anticipated by Carmichael and therefore Claim 1 is patentable over Carmichael.

For the same reasons as outlined above, Applicant submits that Claim 21 is not anticipated by Carmichael. In particular, Carmichael does not disclose a plug in the context of this claim and also Carmichael does not disclose increasing pressure and keeping that pressure within a predetermined range over sufficient time to move the actuating member from the first [closed] position to a second [open] position.

Based on the above, Applicant respectfully submits that Claim 21 is not anticipated by Carmichael and therefore Claim 21 is patentable over Carmichael.

Applicant refers to the Examiner's closing comments in response to the arguments presented previously. The Examiner argues that in Carmichael before reduction in pressure to move the sleeve to the second position, the pressure has to be increased to a range that overcomes the bias in the spring 8 for an amount of time so that the pin 22 can move into the position shown in figure 4, before the reduction in pressure occurs and the actuation member 7 can move to the second position. Applicant respectfully disagrees and refers to column 5, lines 33 to 47, where it clearly states that the downhole tool moves upwardly when fluid pressure is increased thus breaking the shear pin from the running in condition to the primed condition. The sleeve is not locked in the primed configuration. From the primed condition – where pressure is applied for an amount of time to keep the radial ports closed – pressure is decreased and the sleeve moves downwardly under force of the spring until it reaches the open configuration. The pin 22 moves in the slot under the spring force and not due to increased pressure in the context of Claim 1. Applicant respectfully requests that its arguments presented above be reconsidered by the Examiner.

The Examiner also rejects Claims 7, 8 and 27 as previously presented as being obvious in view of Carmichael and Henderson. Henderson discloses a sand well screen, which is not a plug in the context of Claim 1. Moreover, Henderson does not disclose the other deficiencies of Carmichael as highlighted above with regard to Claim 1. Applicant therefore submits that Claims 7, 8 and 27 are allowable.

Since Carmichael does not teach or suggest each and every feature of

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currently pending independent Claims 1 and 21, Applicant respectfully asserts that this reference cannot properly be cited as anticipating these claims.

Since independent Claims 1 and 21 are allowable over the prior art, Applicant asserts that all claims depending therefrom are allowable for at least the same reasons, as well as for the features that they recite. As such, Applicant respectfully requests withdrawal of the present rejections under 35 U.S.C. §102(b) and 103(a).

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

November 12, 2010

Date

Respectfully submitted



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